

THE CLAIMS:

1. (Previously presented) A method for production of an α -glucan from a cellobiose, comprising:

reacting a solution containing a cellobiose, a primer, a source of phosphoric acid, cellobiose phosphorylase, and α -1,4-glucan phosphorylase to produce an α -glucan; wherein the step of reacting the solution to produce the α -glucan comprises removing glucose produced as a byproduct from said solution simultaneously with production of said α -glucan.

Claims 2-5. (Cancelled)

6. (Previously presented) The method according to claim 1, wherein said solution further contains glucose isomerase or glucose oxidase.

7. (Previously presented) The method according to claim 1, wherein said solution further contains glucose oxidase and mutarotase.

8. (Original) The method according to claim 7, wherein said solution further contains catalase or peroxidase.

9. (Original) The method according to claim 1, wherein said source of phosphoric acid is inorganic phosphoric acid, glucose-1-phosphate, or a mixture of inorganic phosphoric acid and glucose-1-phosphate.

10. (Original) The method according to claim 1, wherein the concentration of said source of phosphoric acid is 1mM to 50mM.

11. (Original) The method according to claim 1, wherein said α -glucan is amylose.